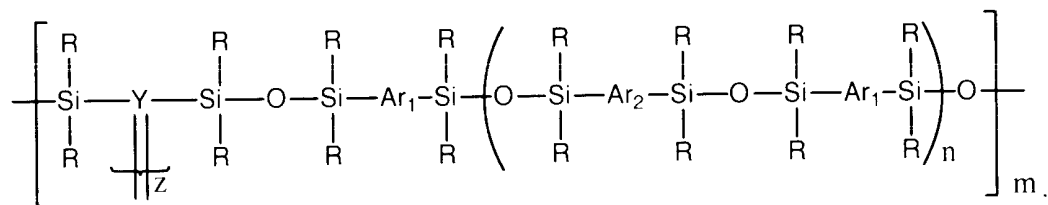


ABSTRACT

[0086] The invention comprises a networked polymer comprising the formula:



wherein $n \geq 1$; wherein n is an average value obtained by averaging all repeating units of the networked polymer; wherein $m \geq 1$; wherein Y is a divalent group containing one or more acetylenic groups, one or more ethenyl crosslinks, or both; wherein z is the crosslink density; wherein Ar_1 and Ar_2 are independently selected aromatic groups; and wherein each R is independently selected from the group consisting of alkyl, aryl, alkylaryl, haloalkyl, haloaryl, and combinations thereof. The invention also includes prepolymers and precursors needed to make the networked polymer and processes for making all of the above. The invention also includes a ceramic composition made by pyrolysis of the networked polymer.